

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A ceramic heater comprising: a ceramic body, a heat generating resistor buried in said ceramic body, an electrode pad that is electrically connected to said heat generating resistor and is formed on the surface of said ceramic body, a boron-based plating layer formed on the surface of said electrode pad having uniform thickness achievable by electroless plating, and a lead member bonded onto said plating layer by means of a brazing material,

wherein content of boron (B) in the surface of said plating layer is 1% by weight or lower.

2. (Original) The ceramic heater according to claim 1, wherein content of carbon (C) in the surface of said plating layer is 10% by weight or lower.

3-5. (Canceled).

6. (Original) A ceramic heater comprising: a ceramic body, a heat generating resistor buried in said ceramic body, an electrode pad that is electrically connected to said heat generating resistor and is formed on the surface of said ceramic body, a first plating layer formed on the surface of said electrode pad, a lead member bonded onto said plating layer by means of a brazing material, and a secondary plating layer that covers said brazing material,

wherein the component of the brazing material is diffused into said secondary plating layer to a depth of 1 μm or larger, and depth of a portion from the surface of

said secondary plating layer where the brazing material has not diffused therein is 1 μm or larger.

7. (Original) The ceramic heater according to claim 6, wherein grain size of said second plating layer is 5 μm or smaller.

8. (Currently amended) A ceramic heater comprising: a ceramic body that is formed from a non-oxide material and has a tube-like or cylindrical shape; and a metal plate that has a curved shape and is connected with said ceramic body via a brazing material,

wherein a radius R_1 (mm) of curvature of said ceramic body in the lead-out section, a radius R_2 (mm) of curvature of the inner surface of said metal plate and a mean thickness t (mm) of the metal layer satisfy the relationship $-0.1 \leq (R_1 - R_2) < t$,

wherein said brazing material includes a metal of which liquidus-line temperature is 1200°C or lower as main component and at least one kind of V, Ti Zr and Hf as active metal;

a reaction layer is formed between said brazing material and said ceramic body through the reaction of said active metal and said ceramic body; and

the proportion of oxide of the active metal in said reaction layer between the brazing material and the non-oxide ceramic material is in a range from 5 to 90 atomic %.

9. (Original) The ceramic heater according to claim 8, wherein said reaction layer contains at least one of nitride, silicate and carbide of said active layer in addition to oxide of said active metal.

10. (Previously presented) The ceramic heater according to claim 8, wherein the main component of said brazing material is at least one kind selected from a group consisting of Ni based material, Au-Ni based material, Ag-Cu based material, Ag-Cu-In based material and Au-Cu based material.

11. (Previously presented) The ceramic heater according to claims 8, wherein the proportion of oxide of the active metal is in a range from 0.5 to 90 atomic % in a portion of said reaction layer to a depth of 0.1 μm from the interface with said ceramic body.

12. (Previously presented) The method for manufacturing a ceramic heater according to claim 8, wherein a metal paste that contains said active metal in the form of element or hydrogen compound thereof having particle size in a range from 0.5 to 100 μm is applied to said ceramic body, and is heated in vacuum atmosphere of which pressure is 1.33 to 1.33×10^{-5} Pa.

13. (Canceled)

14. (Currently amended) The ceramic heater according to claim ~~[[13]]~~ 8, wherein the thickness of the brazing material layer formed between said metal plate and the ceramic body in the periphery of said metal plate is in a range from 30 to 150 μm .